FIG. 1 PRIOR ART

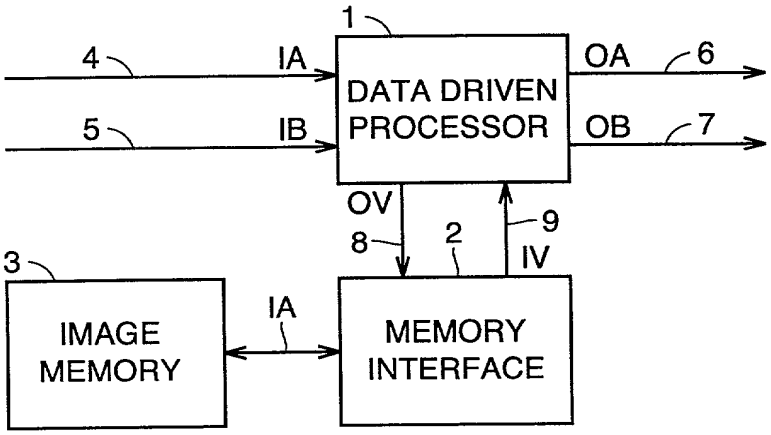


FIG. 2 PRIOR ART

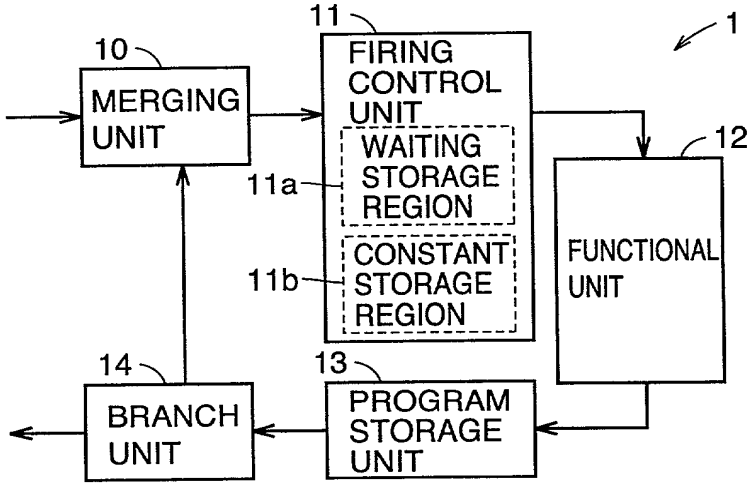


FIG. 3 PRIOR ART

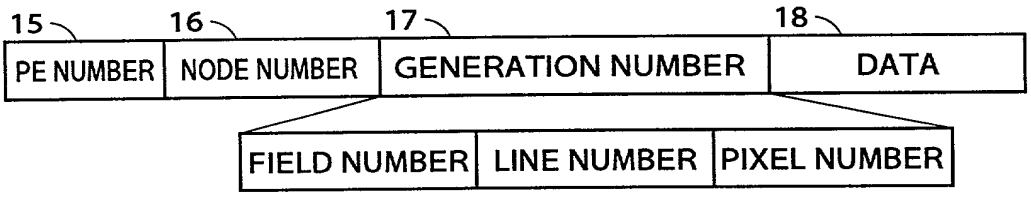


FIG. 4

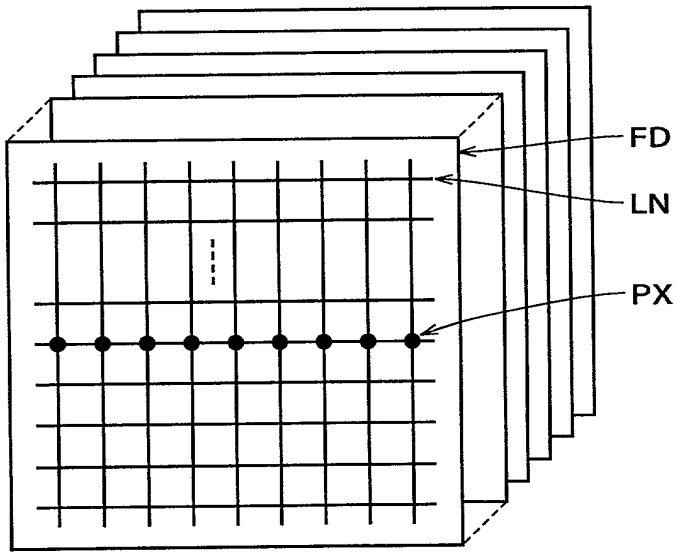
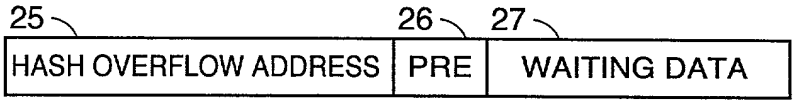


FIG. 5 PRIOR ART

FIG. 6 PRIOR ART

VCD : Validity of Constant Data
(RELEVANT CONSTANT DATA IS VALID WHEN "1")

FIG. 7 PRIOR ART



PRE : PREsence flag
(RELEVANT WAITING DATA IS VALID WHEN "1")

FIG. 8 PRIOR ART

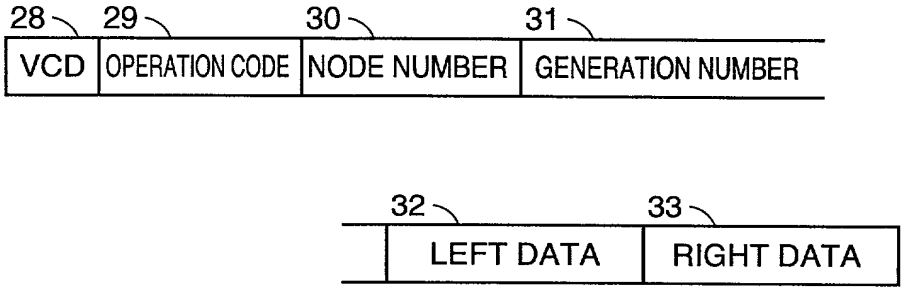


FIG. 9 PRIOR ART

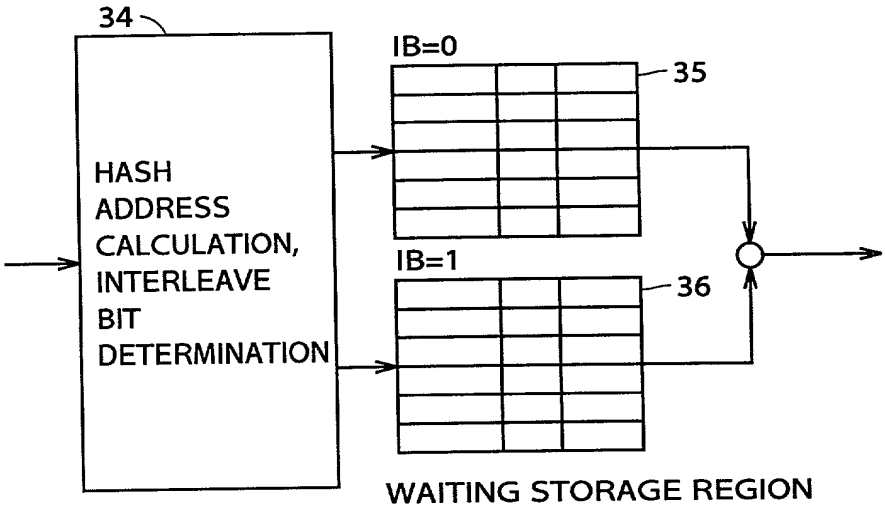


FIG. 10 PRIOR ART

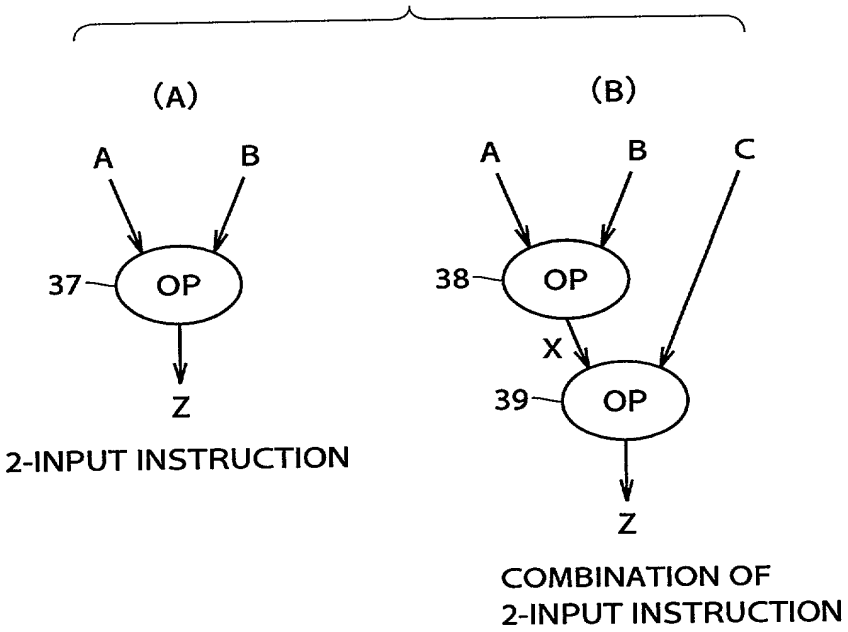


FIG. 11

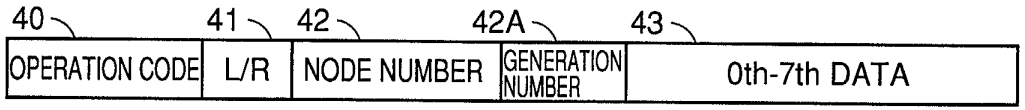

40
41
42
42A
43
OPERATION CODE
L/R
NODE NUMBER
GENERATION NUMBER
0th-7th DATA

FIG. 12

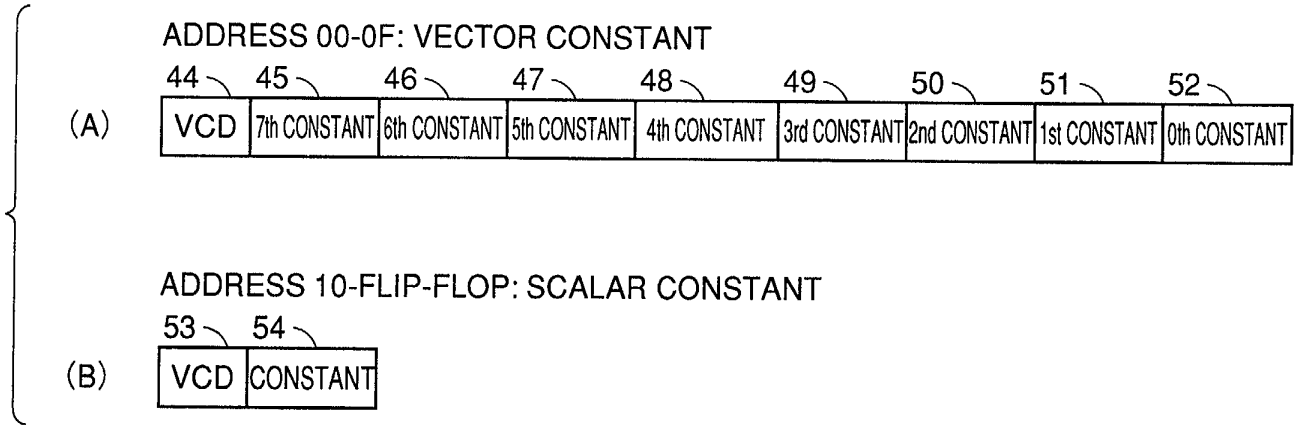

ADDRESS 00-0F: VECTOR CONSTANT
(A)
44
45
46
47
48
49
50
51
52
VCD
7th CONSTANT
6th CONSTANT
5th CONSTANT
4th CONSTANT
3rd CONSTANT
2nd CONSTANT
1st CONSTANT
0th CONSTANT
ADDRESS 10-FLIP-FLOP: SCALAR CONSTANT
(B)
53
54
VCD
CONSTANT

FIG. 13

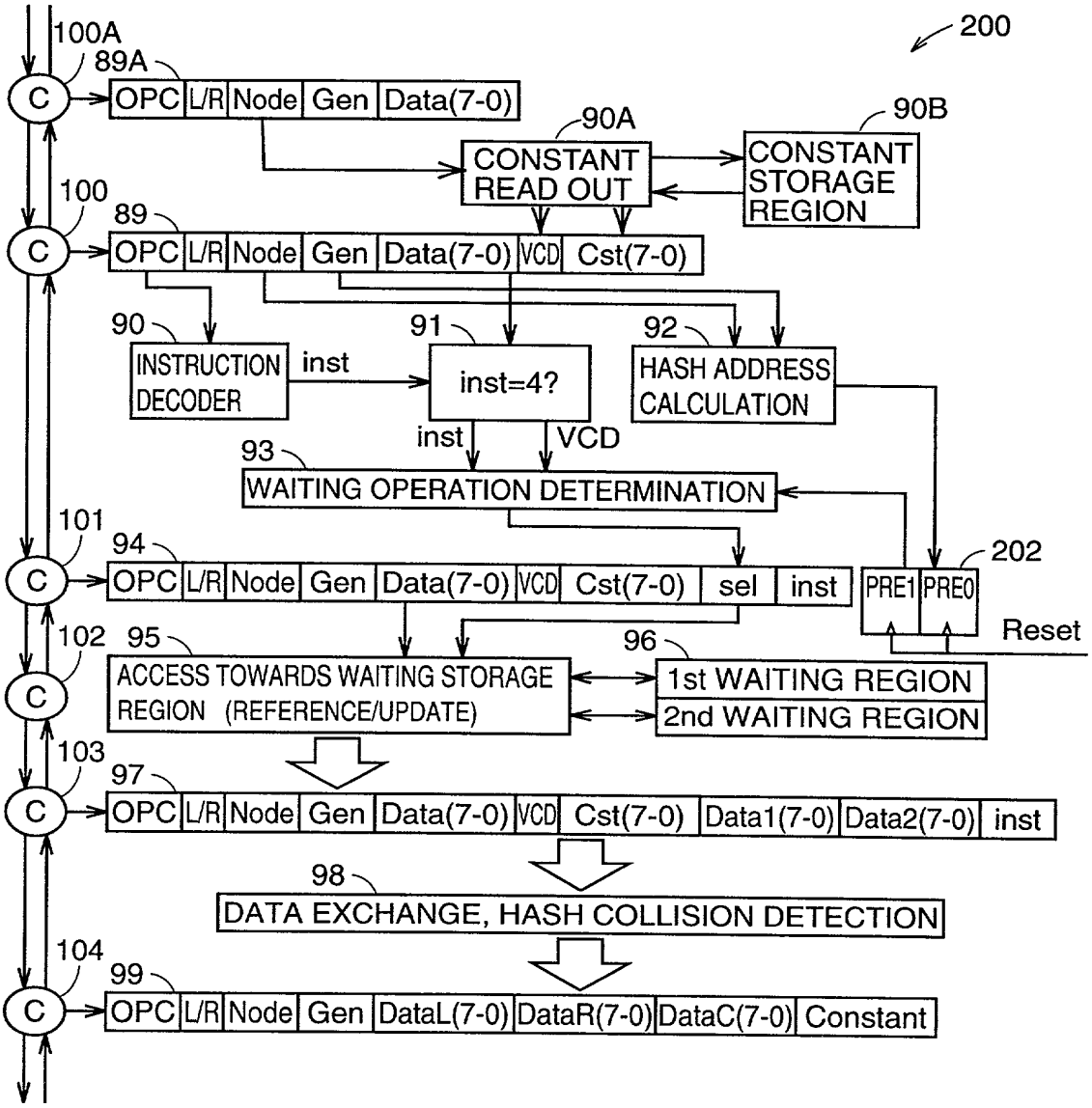

200
100A
89A
C
OPC L/R Node Gen Data(7-0)
90A
CONSTANT READ OUT
90B
CONSTANT STORAGE REGION
100
89
OPC L/R Node Gen Data(7-0) VCD Cst(7-0)
90
INSTRUCTION DECODER
inst
91
inst=4?
92
HASH ADDRESS CALCULATION
inst
VCD
93
WAITING OPERATION DETERMINATION
101
94
OPC L/R Node Gen Data(7-0) VCD Cst(7-0) sel inst
202
PRE1 PRE0
Reset
102
95
ACCESS TOWARDS WAITING STORAGE REGION (REFERENCE/UPDATE)
96
1st WAITING REGION
2nd WAITING REGION
103
97
OPC L/R Node Gen Data(7-0) VCD Cst(7-0) Data1(7-0) Data2(7-0) inst
98
DATA EXCHANGE, HASH COLLISION DETECTION
104
99
OPC L/R Node Gen DataL(7-0) DataR(7-0) DataC(7-0) Constant

FIG. 14

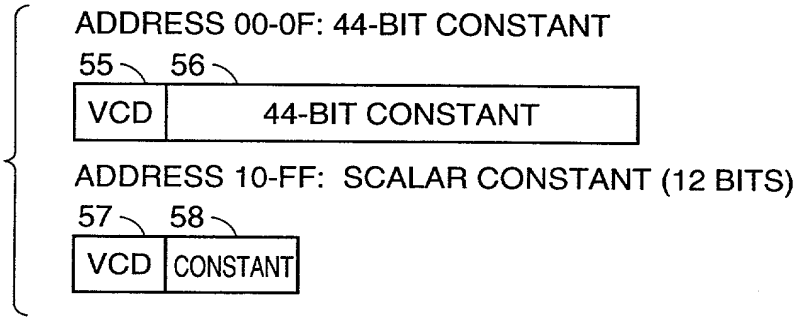

ADDRESS 00-0F: 44-BIT CONSTANT
55
56
VCD
44-BIT CONSTANT
ADDRESS 10-FF: SCALAR CONSTANT (12 BITS)
57
58
VCD
CONSTANT

FIG. 15

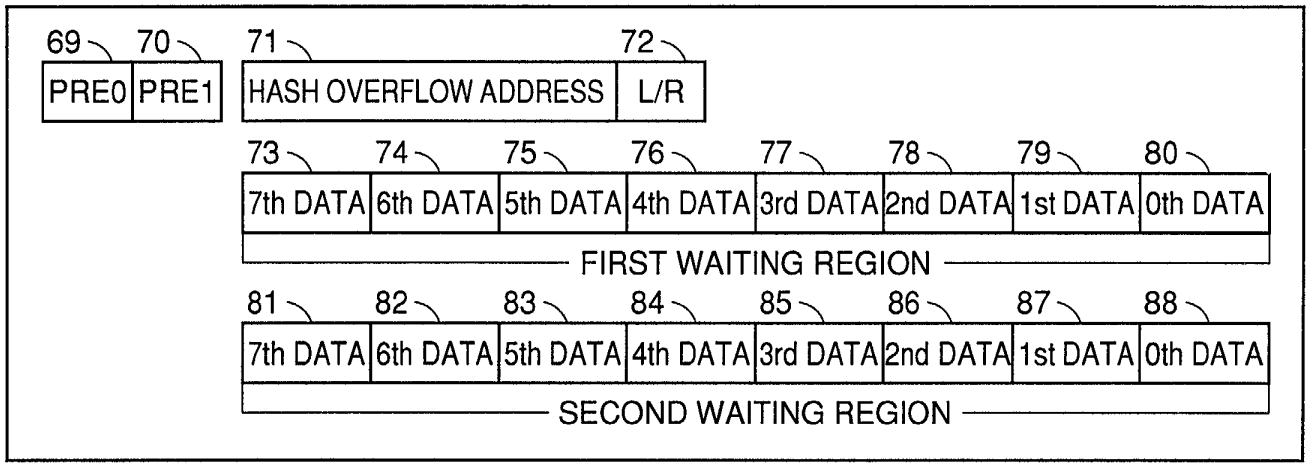
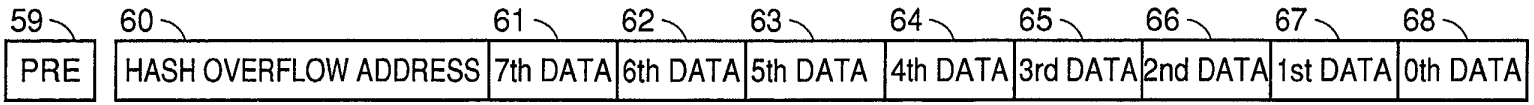

69
70
71
72
PRE0
PRE1
HASH OVERFLOW ADDRESS
L/R
73
74
75
76
77
78
79
80
7th DATA
6th DATA
5th DATA
4th DATA
3rd DATA
2nd DATA
1st DATA
0th DATA
FIRST WAITING REGION
81
82
83
84
85
86
87
88
7th DATA
6th DATA
5th DATA
4th DATA
3rd DATA
2nd DATA
1st DATA
0th DATA
SECOND WAITING REGION

FIG. 16


59
60
61
62
63
64
65
66
67
68
PRE
HASH OVERFLOW ADDRESS
7th DATA
6th DATA
5th DATA
4th DATA
3rd DATA
2nd DATA
1st DATA
0th DATA